## CLAIM AMENDMENTS

Please amend claims 1, 2, 4 and 5, and adding new claims 6-15, all without prejudice, as indicated on the following listing of all the claims in the present application after this Amendment:

1. (Currently Amended) A method of distinguishing high quality elements from potentially defective elements in an array of photo-sensitive elements while illuminated with an object field of varying light intensity thereacross, comprising:

~~calculating~~ calculate a plurality of difference values between outputs of individual ones of the elements and a plurality of neighboring elements,

determine the signs of the difference values for a given one of the individual elements,

if the difference values for [[a]] the given one of the individual elements have different signs, ~~identifying~~ identify the given element to be of high quality, and

if the difference values for the given element have the same signs, ~~identifying~~ identify the given element to be potentially defective and only thereafter proceed to compare the difference values with at least one threshold.

2. (Currently Amended) A method of identifying and correcting defective ones of an array of photo-sensitive pixels, comprising:

directing an object field of varying light intensity across the array,

calculating difference values between outputs of individual ones of the pixels and a plurality of neighboring pixels,

if the difference values for a given one of the pixels have different signs, utilizing the output of the given pixel for data of the object field without comparing the difference values with a threshold,

if the difference values for the given pixel have the same sign, determining whether the difference values are in excess of [[a]] the threshold,

if the difference values are not in excess of the threshold, utilizing the output of the given pixel for data of the object field, and

if the difference values are in excess of the threshold, calculating a value of the given pixel from at least some of the neighboring pixels and utilizing the calculated pixel value [[in]] for data of the object field.

3. (Original) The method of claim 2, wherein said threshold includes either of at least first or second quantities that are different from each other depending upon whether said same sign is positive or negative.

4. (Currently Amended) ~~The~~ A method of ~~claim 2~~ identifying and correcting defective ones of an array of photo-sensitive pixels, comprising:

directing an object field of varying light intensity across the array,

calculating difference values between outputs of individual ones of the pixels and a plurality of neighboring pixels,

if the difference values for a given one of the pixels have different signs, utilizing the output of the given pixel for data of the object field,

if the difference values for the given pixel have the same sign, determining whether the difference values are in excess of a threshold, wherein said threshold includes either of at least first or second quantities that are different from each other depending upon a distance between the given pixel and individual ones of its neighboring pixels,

if the difference values are not in excess of the threshold, utilizing the output of the given pixel for data of the object field, and

if the difference values are in excess of the threshold, calculating a value of the given pixel from at least some of the neighboring pixels and utilizing the calculated pixel value for data of the object field.

5. (Currently Amended) ~~The~~ A method of ~~claim 2~~ identifying and correcting defective ones of an array of photo-sensitive pixels, comprising:

directing an object field of varying light intensity across the array,

calculating difference values between outputs of individual ones of the pixels and a plurality of neighboring pixels,

if the difference values for a given one of the pixels have different signs, utilizing the output of the given pixel for data of the object field,

if the difference values for the given pixel have the same sign, determining whether the difference values are in excess of a threshold, wherein a value of said threshold is dependent upon both (a) whether said same sign is positive or negative and (b) a distance between the given pixel and individual ones of its neighboring pixels,

if the difference values are not in excess of the threshold, utilizing the output of the given pixel for data of the object field, and

if the difference values are in excess of the threshold, calculating a value of the given pixel from at least some of the neighboring pixels and utilizing the calculated pixel value for data of the object field.

6. (New) The method of claim 2, wherein determining whether the difference values are in excess of a threshold includes determining whether positive difference values are in excess of a first threshold and negative difference values are in excess of a second threshold different from the first threshold.

7. (New) A method of distinguishing high quality elements from potentially defective elements in an array of photo-sensitive elements while illuminated with an object field of varying light intensity thereacross, comprising:

maintaining at least one threshold quantity,

calculating difference values between outputs of individual ones of the elements and neighboring elements,

if the difference values for a given one of the individual elements have different signs, identifying the given element to be of high quality without comparing the difference values of the given element with the at least one threshold quantity, and

if the difference values for the given element have the same signs, proceed to compare the difference values with the at least one threshold quantity in order to determine whether the given element is defective.

8. (New) The method of claim 7, wherein calculating difference values includes calculating difference values between outputs of individual ones of the elements and at least four surrounding neighboring elements, thereby calculating at least four difference values for individual ones of the elements.

9. (New) The method of claim 8, wherein the given element is identified to be of high quality when at least one of the at least four difference values has a different sign than the other difference values.

10. (New) A method of identifying and correcting defective ones of an array of photo-sensitive pixels, comprising:

directing an object field of varying light intensity across the array,

calculating difference values between outputs of individual ones of the pixels and a plurality of neighboring pixels,

if the difference values for a given one of the pixels have different signs, utilizing only that result to conclude that the given pixel is not defective and thereafter using the output of the given pixel for data of the object field,

if the difference values for the given pixel have the same sign, determining whether the difference values are in excess of a threshold,

if the difference values are not in excess of the threshold, utilizing the output of the given pixel for data of the object field, and

if the difference values are in excess of the threshold, calculating a value of the given pixel from at least some of the neighboring pixels and utilizing the calculated pixel value for data of the object field.

11. (New) A method of generating a sequence of signal outputs from individual photo-sensitive elements in an array while the array is illuminated with an object field of varying light intensity thereacross, comprising:

calculating a plurality of difference values between outputs of individual ones of the elements and outputs of a plurality of neighboring elements,

determine the signs of the difference values for a given one of the individual elements in sequence,

if the difference values for the given one of the individual elements have different signs, utilize the actual output of the given element as one of the sequence of signal outputs of the array, and

if the difference values for the given element have the same signs, only then

proceed to compare magnitudes of the difference values with at least one threshold, and

if the difference values exceed the threshold, calculate a quantity corresponding to the output of the given element from the outputs of the neighboring elements and use the calculated quantity as said one of the sequence of signal outputs of the array instead of the actual output.

12. (New) The method of claim 11, wherein said at least one threshold includes at least first and second threshold quantities that are different from each other.

13. (New) The method of claim 12, wherein comparing magnitudes of the difference values with the at least one threshold includes comparing negative difference value magnitudes with the first threshold and positive difference value magnitudes with the second threshold.

14. (New) The method of claim 12, wherein comparing magnitudes of the difference values with the at least one threshold includes comparing individual difference value magnitudes with one of the first or second threshold quantities depending upon a distance of the neighboring element from the given element that is used to calculate the difference value.

15. (New) The method of claim 11, wherein said at least one threshold includes a plurality of threshold quantities that are different from each other, and wherein comparing individual difference value magnitudes with the at least one threshold includes comparing a difference value magnitude with one of the plurality of threshold quantities selected on the basis of (a) whether the sign of the difference value magnitude is positive or negative and (b) a

distance between the given element and the neighboring elements used to calculate the difference value.

16. (New) An image capturing device, comprising:

a sensor having a two-dimensional array of photo-sensitive elements and positioned to have an image with a varying light intensity projected thereacross, the sensor providing signal outputs of the individual elements in sequence according to a level of light intensity projected on the individual elements, and

an electronic processor receiving the signal outputs of the sensor elements to provide data of image pixels, the processor operating with signal processing that includes, for individual signal outputs of the sensor elements in sequence:

calculating difference values between outputs of the individual element and a plurality of neighboring elements,

if the difference values for the individual element have different signs, deciding to provide data of a corresponding image pixel therefrom without performing any further processing of the signal outputs of the elements to make the decision,

if the difference values for the individual element have the same sign, determining whether the difference values are in excess of a threshold,

if the difference values are not in excess of the threshold, deciding to provide the data of the corresponding image pixel therefrom, and

if the difference values are in excess of the threshold, calculating the data of the corresponding image pixel from the signal outputs of at least some of the elements neighboring the individual element.